

Quarterly Customer Meeting

Strategy for Moving the Washington State Enterprise to Microsoft Office 365

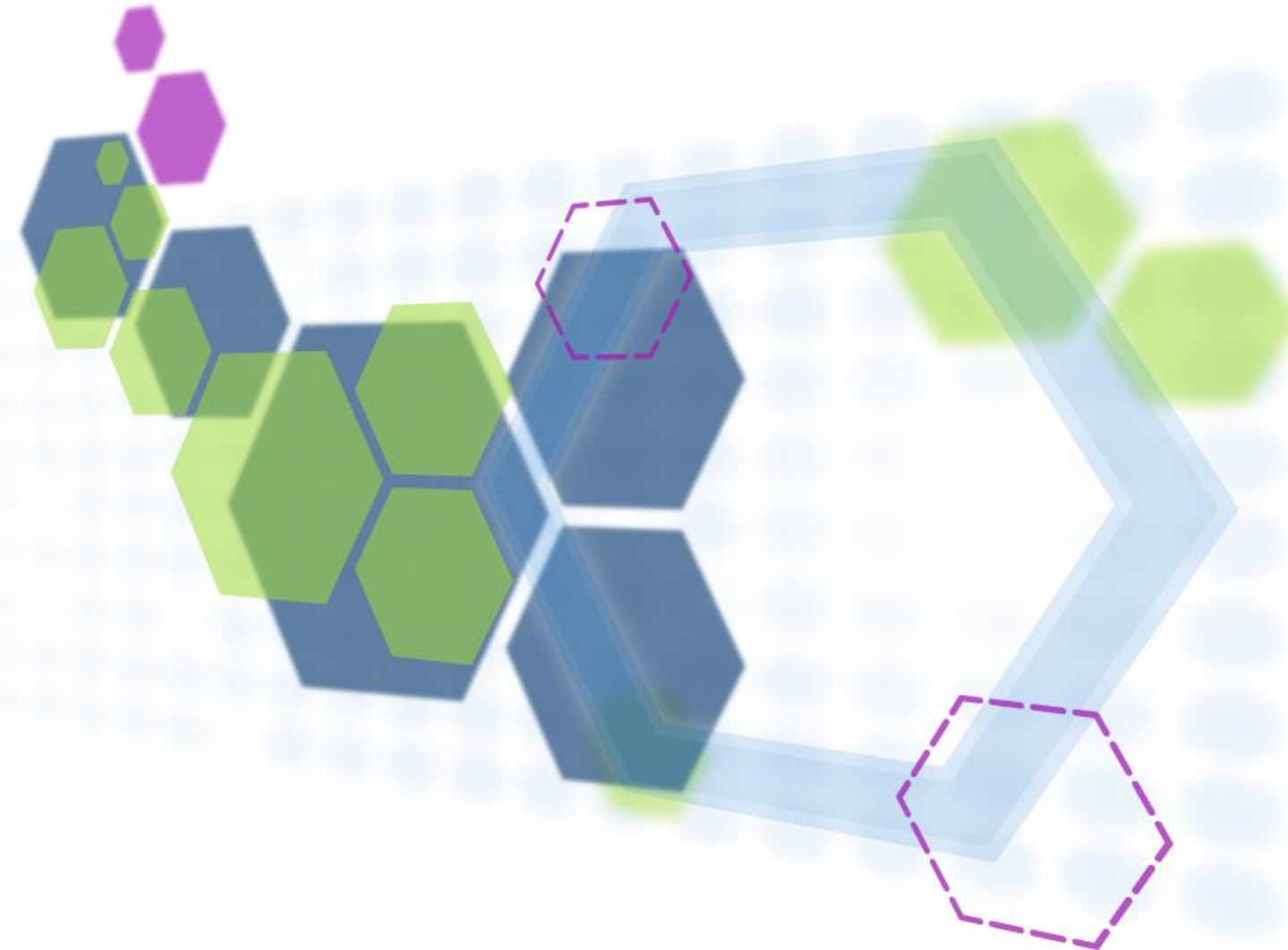
June 2, 2016



Questions We Will Address Today

- ❑ What is Microsoft Office 365?
- ❑ Why Should The State Move To Office 365?
- ❑ How Does The State Move To Office 365?
- ❑ What Have We Done So Far?
- ❑ Where Do We Go From Here?

What Is Microsoft Office 365?



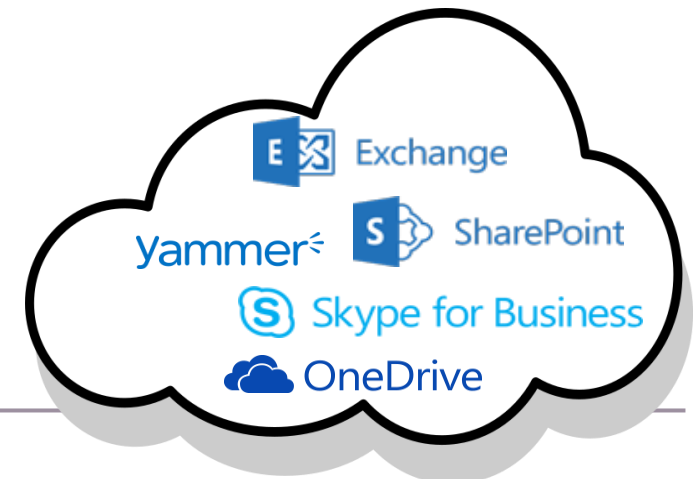
What is Microsoft Office 365?

Brand Name for a Collection of Products

- **Microsoft Office Professional** desktop software
- Licensed as a /user/month subscription

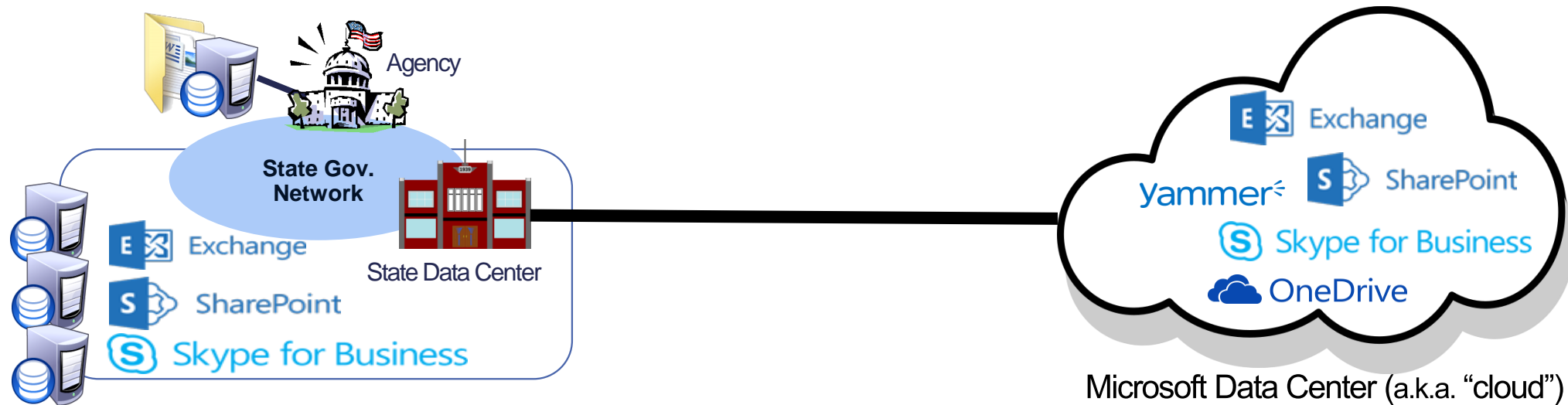
PLUS

- Web versions of Word, Excel, PowerPoint
- Collection of Microsoft Enterprise Services
- Delivered from Microsoft data centers (a.k.a. Cloud)



What Changes With Office 365?

- Shared services run at Microsoft
- Cloud storage for user files (OneDrive for Business)
- Some new cloud-only products
 - Office Online – Word, Excel, PowerPoint
 - Yammer – Corporate social networking
 - Office 365 Video – Enterprise video sharing
 - Delve – Personalized search & discovery



What Stays the Same?

The User Experience!

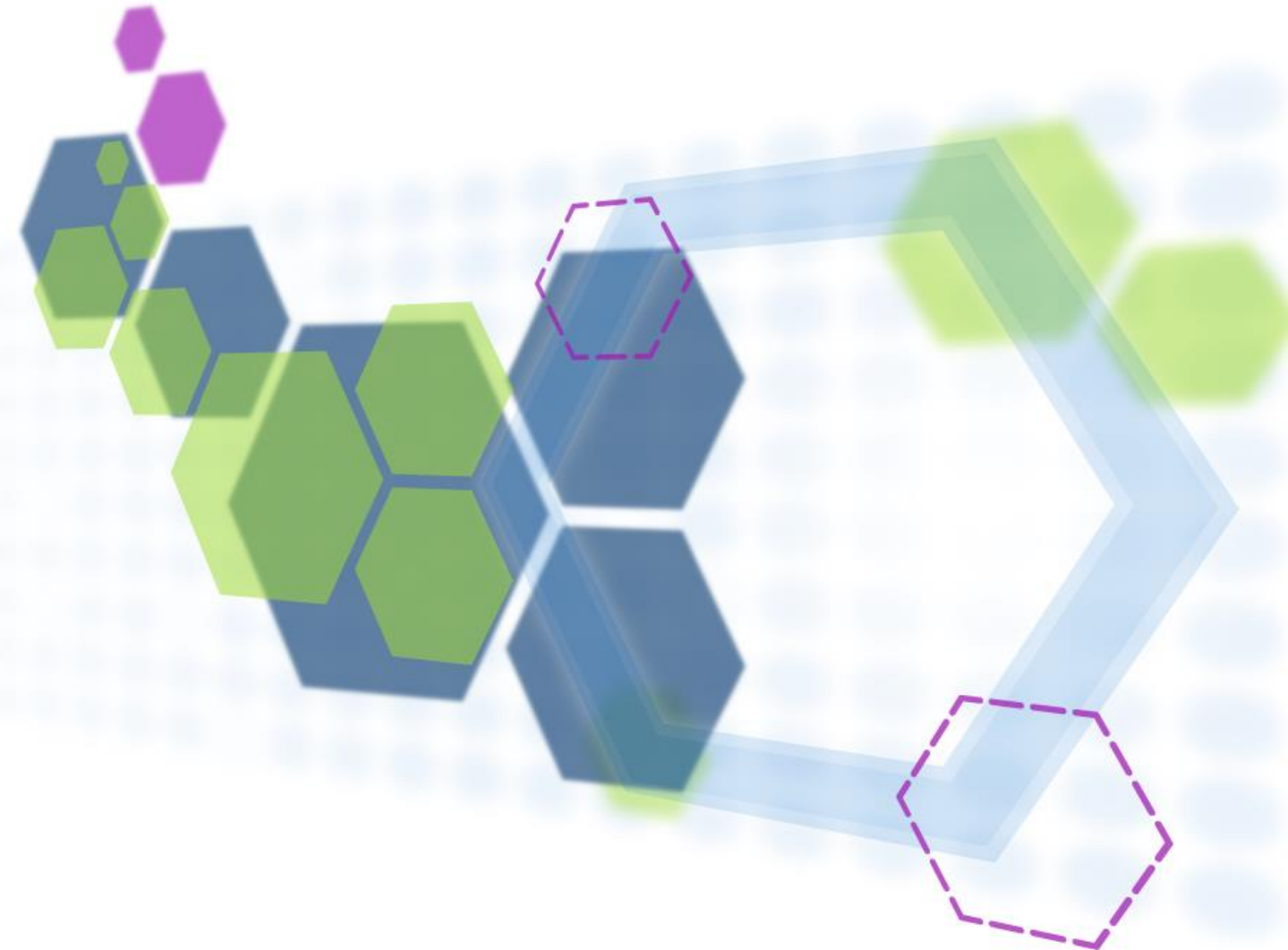
The same Word, Excel, PowerPoint and Outlook you use today, running on the same computer, laptop, tablet or phone

What Else Stays the Same?

- **WaTech Enterprise Services:**
 - Network infrastructure, management and monitoring – Cloud connectivity
 - Data and network security
 - E-Mail & shared services administration
 - Identity & Access Management
 - Enterprise Active Directory – including directory management in the cloud
 - Directory Federation & synchronization
 - Single sign-on to cloud services



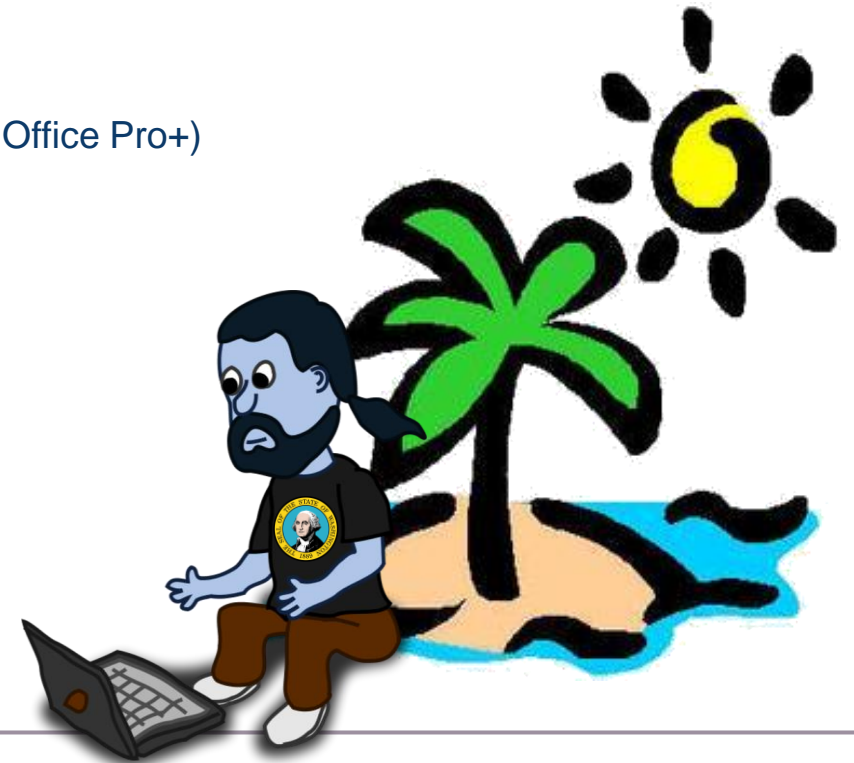
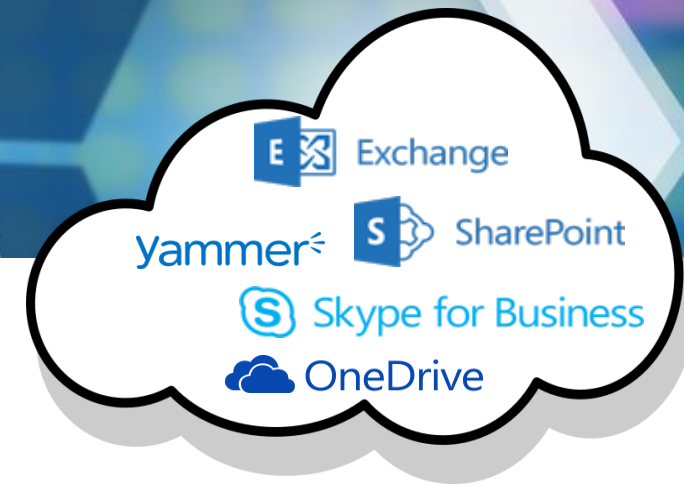
Why Should the State Move to Office 365?



Why Move to Office 365?

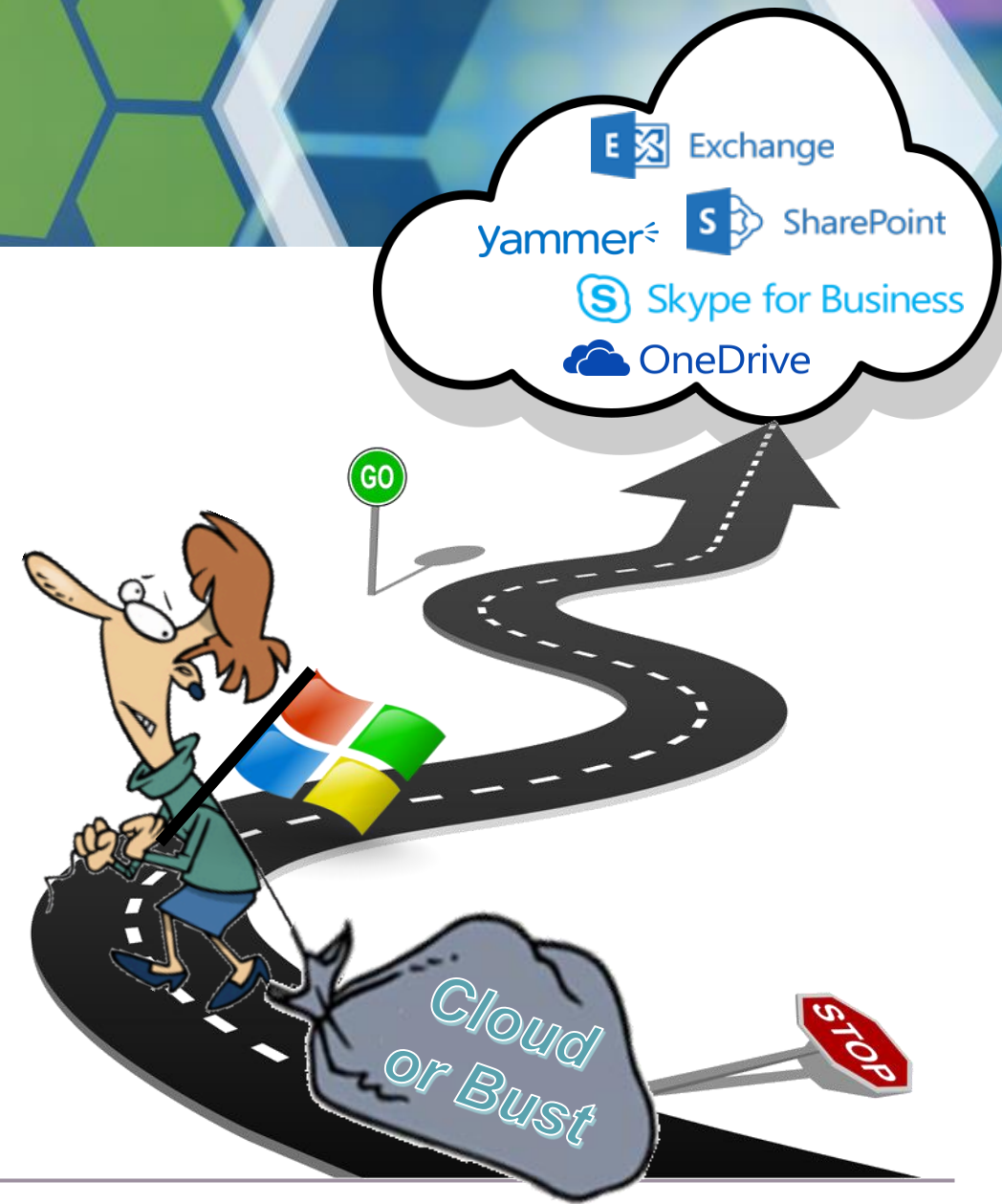
- **Boost Agility and Productivity**
- **New Products and Features**
- **Attractive User-based Licensing** (Microsoft Office Pro+)

5 PCs or Macs
+
5 Tablets
+
5 Phones

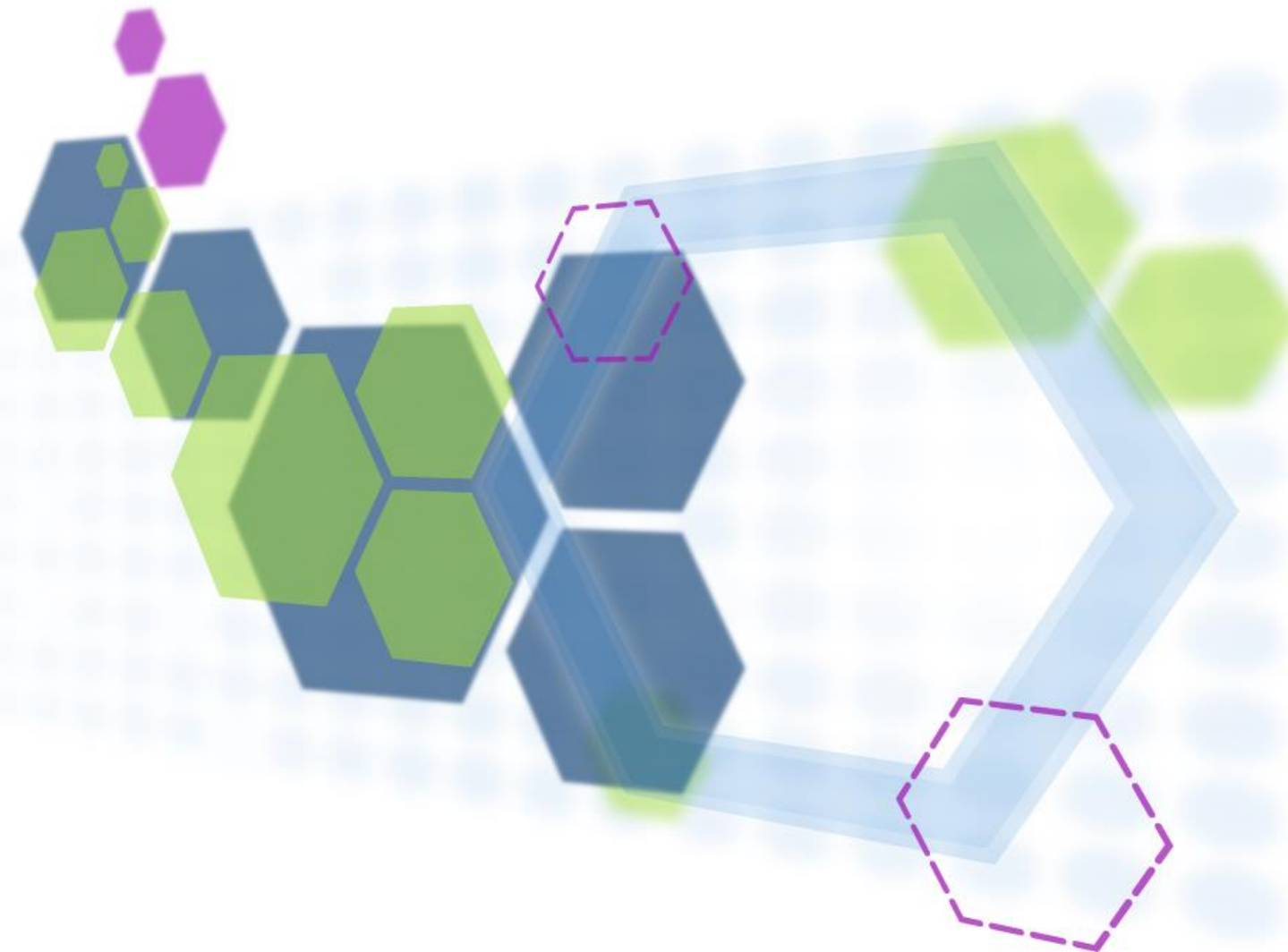


Why Move to Office 365?

- **Reduced Capital Investments**
- **Improved Product Security**
- **Positions the State Strategically**
 - Microsoft investing and innovating in cloud products, not in on-premises versions



How Does the State Move to Office 365?



Moving to Office 365

Planning – Design - Testing

Procure
Appropriate
Office 365
Licenses

Design
Enterprise
Identity and
Access
Mgmt (IAM)
Architecture

Define
Enterprise
Office 365
Tenant
Architecture

Engineer
Optimal
Network
and Security
Solution

Establish
Hybrid
Environment
for Migration

Begin
Migration to
Appropriate
Tenant

Enterprise Project Management and Governance

Procure Appropriate Office 365 Licenses

Office 365 Government E3 Plan

- 34 of 63 agencies purchased = 97% of Enterprise Active Directory users (55,170)

Additional Licenses Required

- Azure Active Directory Premium & Azure Rights Management
- *Microsoft Enterprise Mobility Suite (EMS)* is most cost effective way to procure

Licensed for Cloud, On-premises or Hybrid

- Office 365 entitles users to access services in the Microsoft cloud OR on premises (e.g. existing WaTech Shared Services E-mail)

Identity and Access Management (IAM)

- IAM is the Foundation of a Secure and Manageable Enterprise
- Enterprise Active Directory (EAD) is the State's IAM Standard
 - OCIO/ISB Policy 183.20.10 - *Identity Management User Authentication Standards*, mandates executive branch agencies use the state's Enterprise Active Directory as the standard identity management solution
- We must maintain the integrity of the state's name space
- Crucial to a variety of strategies beyond O365
 - All enterprise applications (ERP, AFRS, HRMS)
 - Single Sign-On for enterprise applications

The IAM / Office 365 Tenant Connection

- A “Tenant” is the Basic Administrative Construct for Office 365
 - Virtual container in which all an organization’s data and IAM info is stored and managed
 - A tenant acts as a natural boundary, isolating one organization from another (think: Pepsi and Coke)
- Office 365 Tenant Management = Identity Management
 - EAD is the foundation for Integrating and Managing Office 365
 - The state’s Enterprise Active Directory (EAD) is extended and integrated into the Office 365 Tenant
 - All Office 365 organizations and users are authenticated against the state’s EAD

Tenant Design Options

Single Shared Tenant

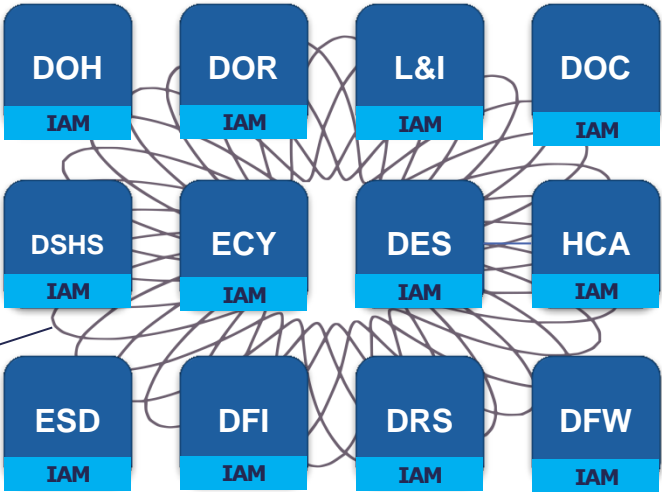


Replicates current EAD structure - Collaboration and single sign-on are inherent to tenant. WaTech manages tenant IAM, ensures isolation between agencies.

Isolation enforced by tenant boundaries – better for compliance but federated identity infrastructure more complex and costly to manage.

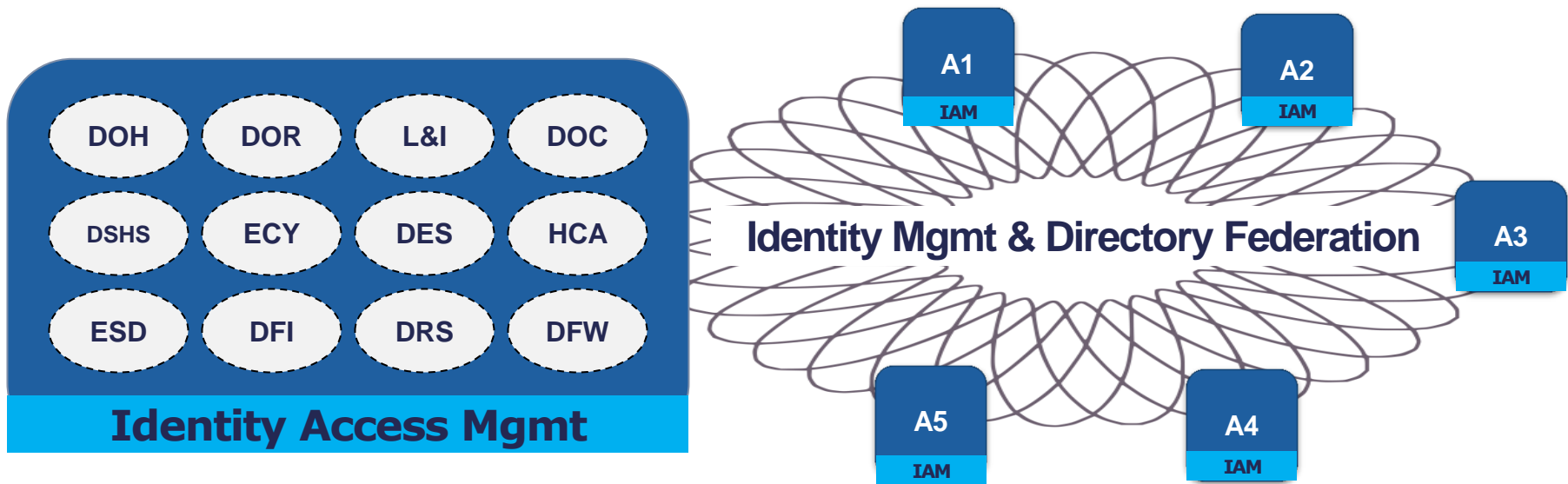
Separate Agency Tenants

(1 agency per tenant)




Basic Choice: Shared Tenant or Separate Tenants?

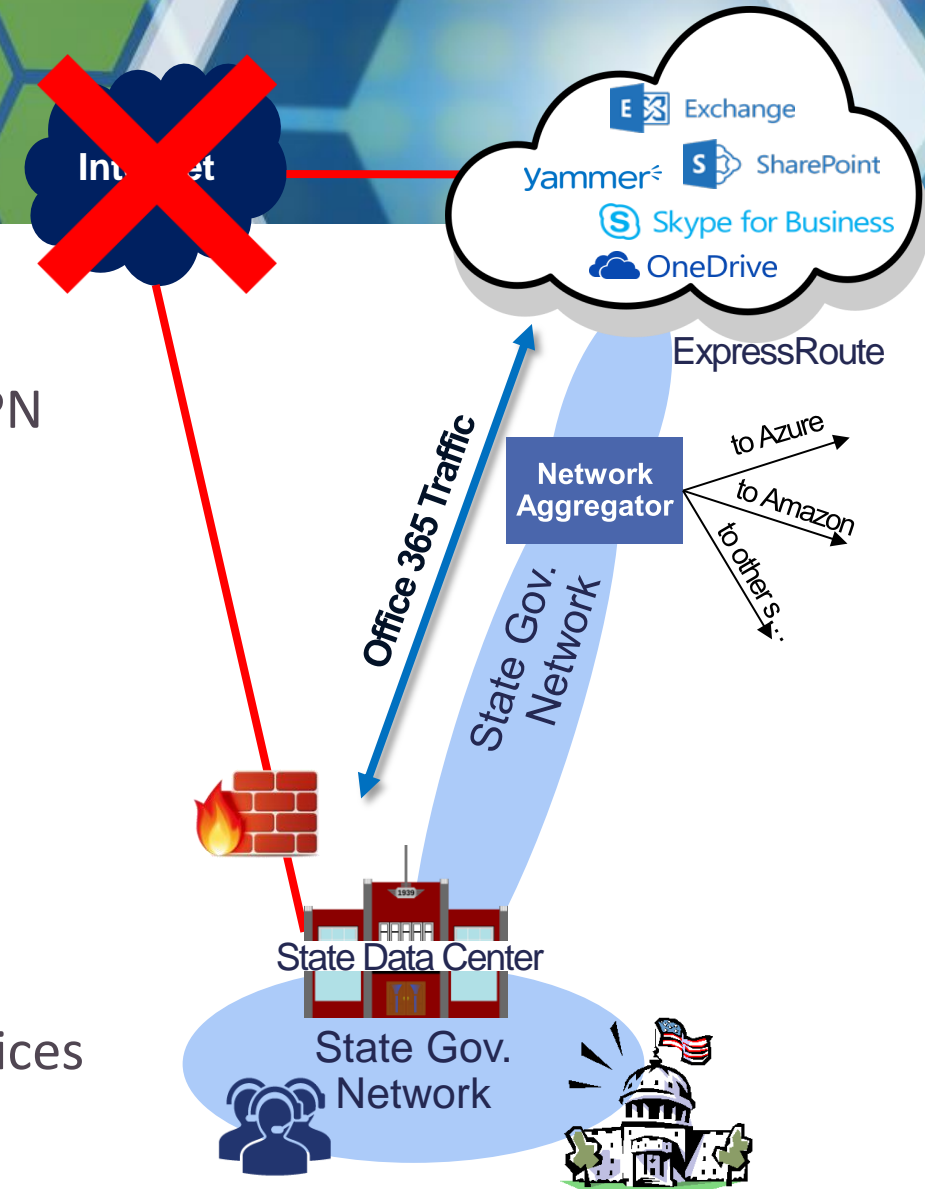
Tenant Design Options



Single Shared Tenant + A Few Separate Tenants

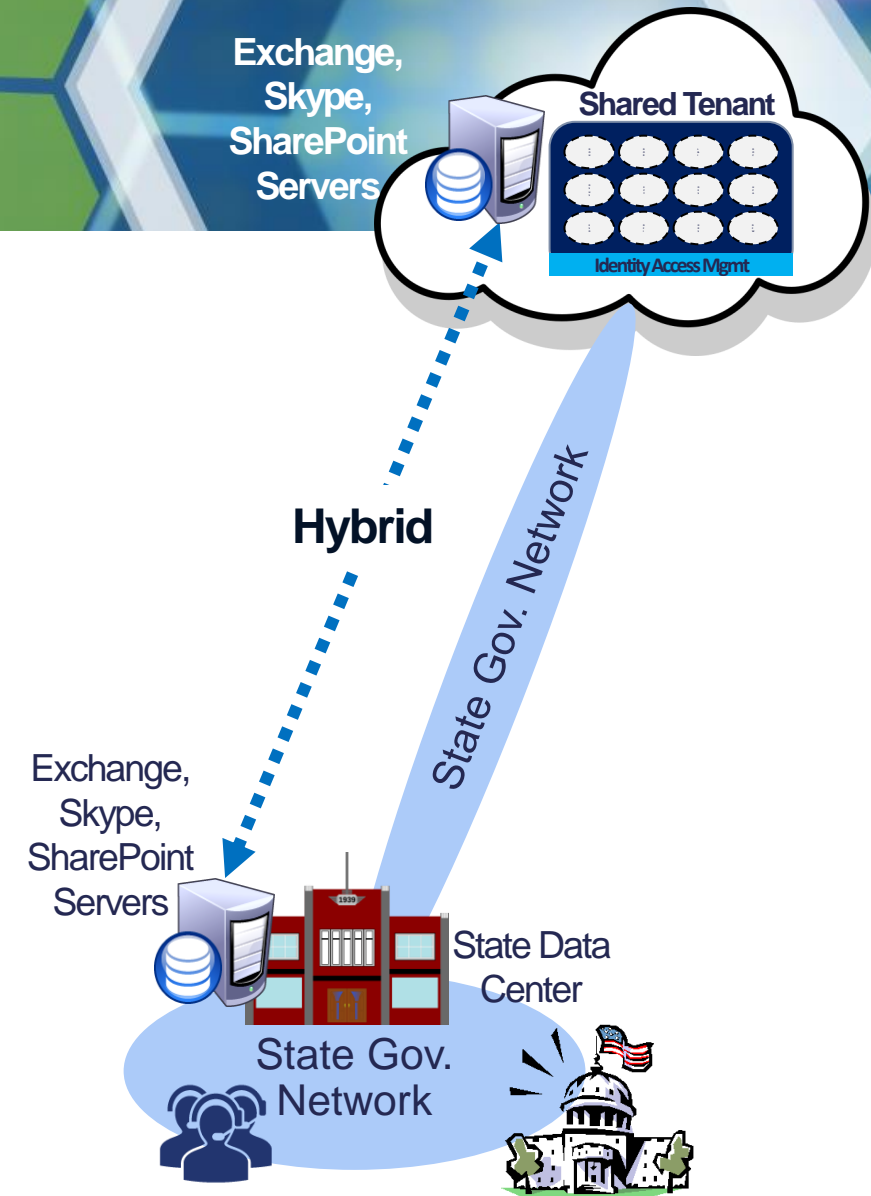
Network & Security Infrastructure

- Option 1: Public Internet
 - Requires multi-million \$ upgrades to existing firewalls/VPN
 - Unpredictable performance, high security threats
 - If we don't act soon – state will devolve into this option
-  Option 2: Private Network (MS ExpressRoute)
 - Extends State's internal network routing and security
 - Best performance and most cost-effective option
 - Connected via network aggregation vendor
 - Strategically positions State to integrate other cloud services (a.k.a. "Highway to the Cloud")



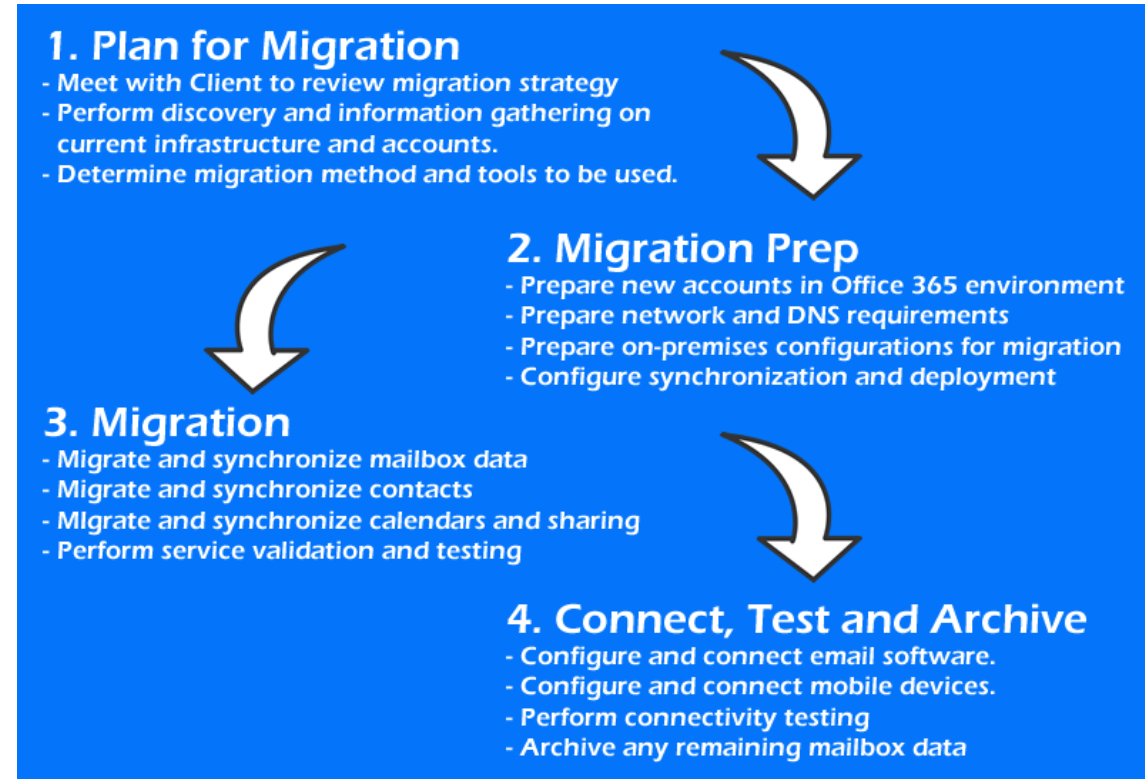
Hybrid Environment for Migration

- Hybrid integration with Enterprise Active Directory and on-premises server products
 - Exchange e-mail
 - Skype for Business
 - SharePoint
- Allows migrating users or information to Office 365
- Hybrid enables some users or some information on-premises and some in the cloud – transparently
- **Important Constraint:**
Can only hybrid with one tenant

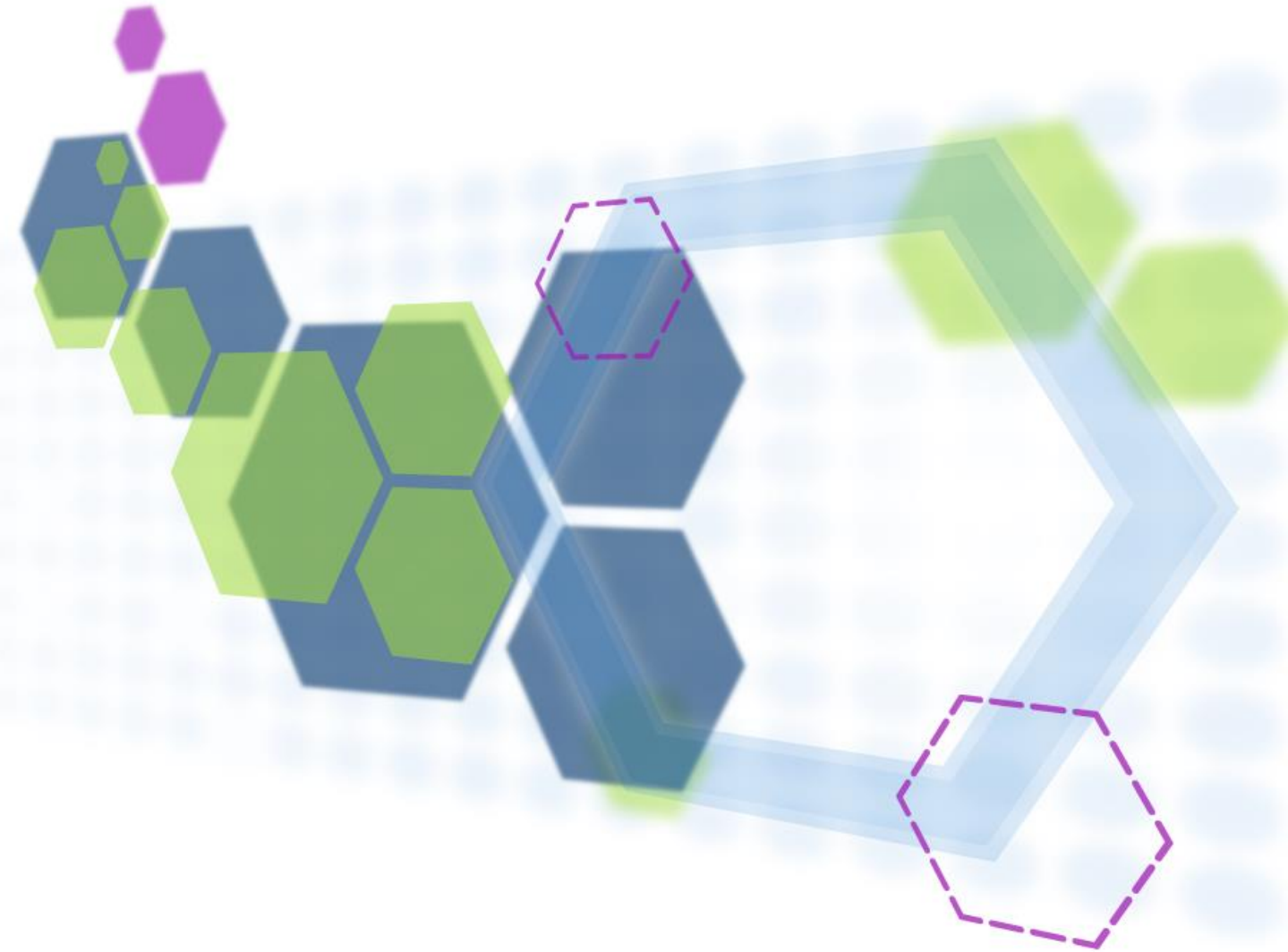


Migration to Office 365

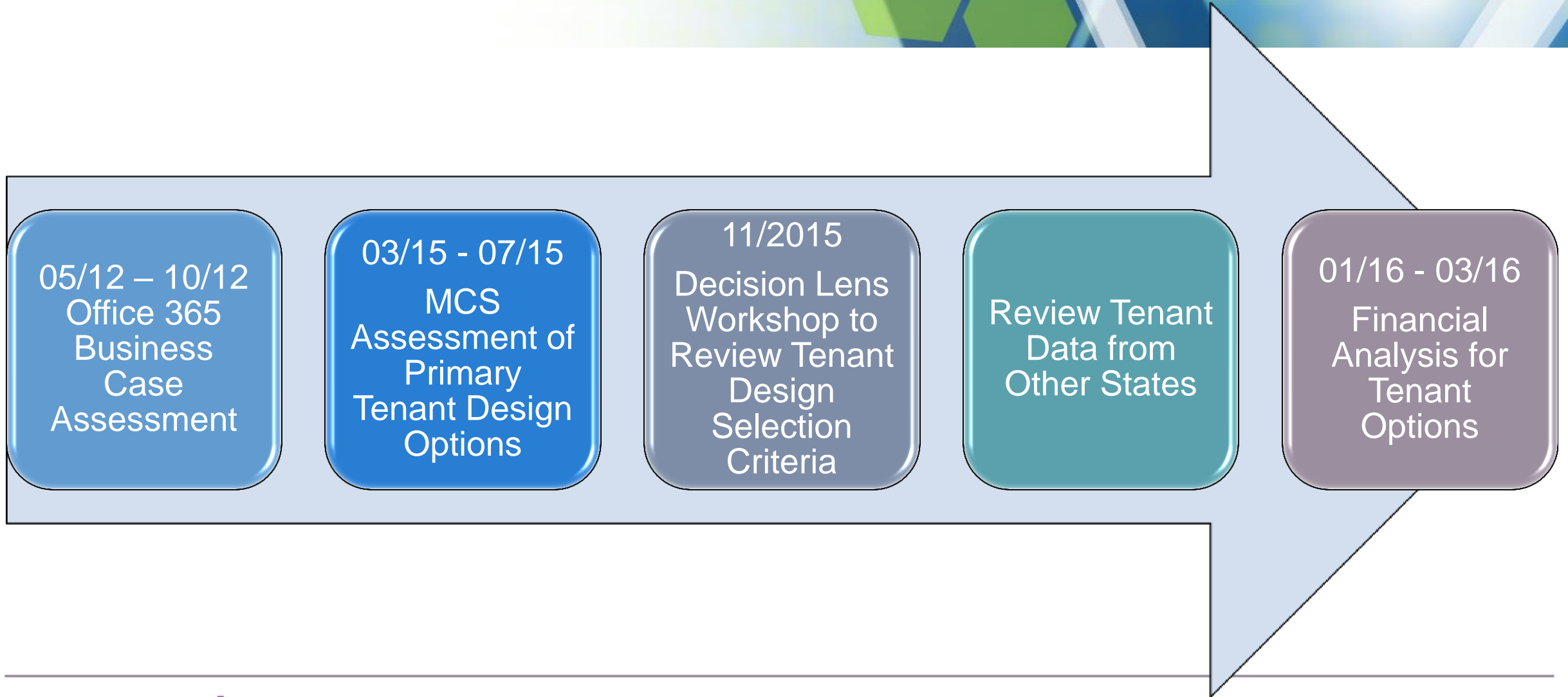
- Requires planned, coordinated effort across all participating agencies, both shared and separate tenants
- Hybrid connection and migration to the Shared Tenant only
- Separate tenant agencies cannot hybrid - must purchase 3rd party migration tools and migration services
- After migration, the State continues in Hybrid mode, requiring some on-premises servers for IAM and some long term archives



What Have We Done So Far?



Process To Reach Strategy Decisions



Office 365 Business Case Assessment

- May 2012 – Oct 2012: Cloud Based Email and Collaboration Project
 - Multi-agency initiative to determine if Office 365 would reduce costs, increase productivity, improve quality of service, position state for the future
- Outcome:
 - Committee determined there was insufficient business case to move forward
 - March 2014: Advisory Council asked CTS to review business case again, with a similar outcome

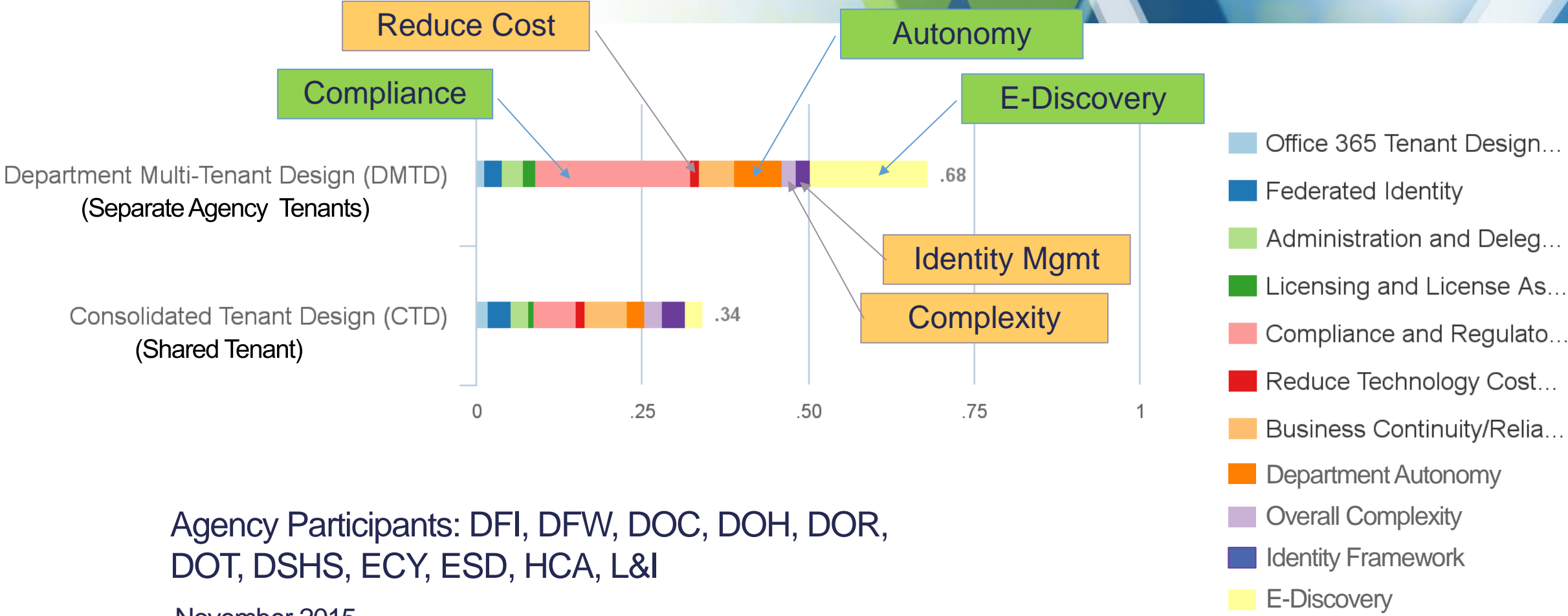
MCS Tenant Design Options Study

- Spring 2015: Microsoft Consulting Services assessment of Office 365 tenant design options – 12 agencies
- Outcome:
 - The majority of the state's business needs could be met by either design
 - Single Shared Tenant is least complex and most cost-effective
 - Separate tenants are better for compliance and autonomy, but complex and costly

Decision Lens Workshop – Review MCS Results

- Nov 2015: Customer workshop with representatives from 11 agencies
 - Criteria derived from MCS report and analysis
 - Compared single shared tenant and separate agency tenants
 - Prioritized criteria for decision making
- Outcome:
 - Higher Value: regulatory compliance, e-discovery and agency autonomy
 - Lower Value: reduced cost, minimized complexity and simplified identity management framework

Decision Lens Results



Tenant Data From Other States

- Microsoft State Government Customers
 - 17 primarily single shared tenant, 5 with exceptions
- Gartner Confirmed ~20 States
 - Almost all shared tenant
 - No reported compliance concerns

State	Shared Tenant	Separate Tenants	Comments
1) Georgia	X		No exceptions
2) North Carolina	X		No exceptions
3) Florida		X	No central IT
4) Alabama	X		w/ exceptions
5) Louisiana	X		w/ exceptions
6) New York	X		
7) Pennsylvania	X		No exceptions
8) Minnesota	X		
9) California		X	Complicated by BPOS-D transition
10) Kansas	X		One agency is anchor org
11) Texas	X	X	Mix
12) Hawaii	X		w/ exceptions
13) Rhode Island	X		Few exceptions
14) Maine	X		
15) Ohio	X		
16) Kentucky	X		Still on-premises
17) Virginia	X		Some exceptions, but still on-prem
18) Maryland	X		Just an RFP at this time
19) Nebraska	X		Still on-premises
20) Santa Clara County, CA	X		No exceptions – maybe Sheriff's office

Office 365 Financial Analysis

- Straw Model to Compare Current Costs with Office 365 Costs
 - 57,000 users in Enterprise Active Directory (EAD) and 68,000 mailboxes
 - Network & security equipment and maintenance costs were annualized over 5 years then divided across all 57,000 users
 - Tenant and IAM infrastructure and administration costs assumes 1 Shared Tenant and 12 Separate Tenants, with 50% total users in the shared tenant
 - Migration costs are rough estimates and highly dependent on size and complexity of agency, amount of data, and number of separate tenants

NOTE: These numbers are for comparison only and should not be interpreted as accurately representing current or future WaTech rates. Costs are derived from actual contracts, rates and vendor quotes. However, many assumptions were made for the straw model and may not reflect actual usage at any particular agency.

Which is Cheaper?

Current

- Office Pro desktop software
- WaTech Shared Services E-mail only

\$22



\$32

Current

- Office Pro desktop software
- All WaTech Shared Services

\$31



\$53 /mo

Office 365

- Shared Tenant
- No customer network capacity upgrades

Office 365

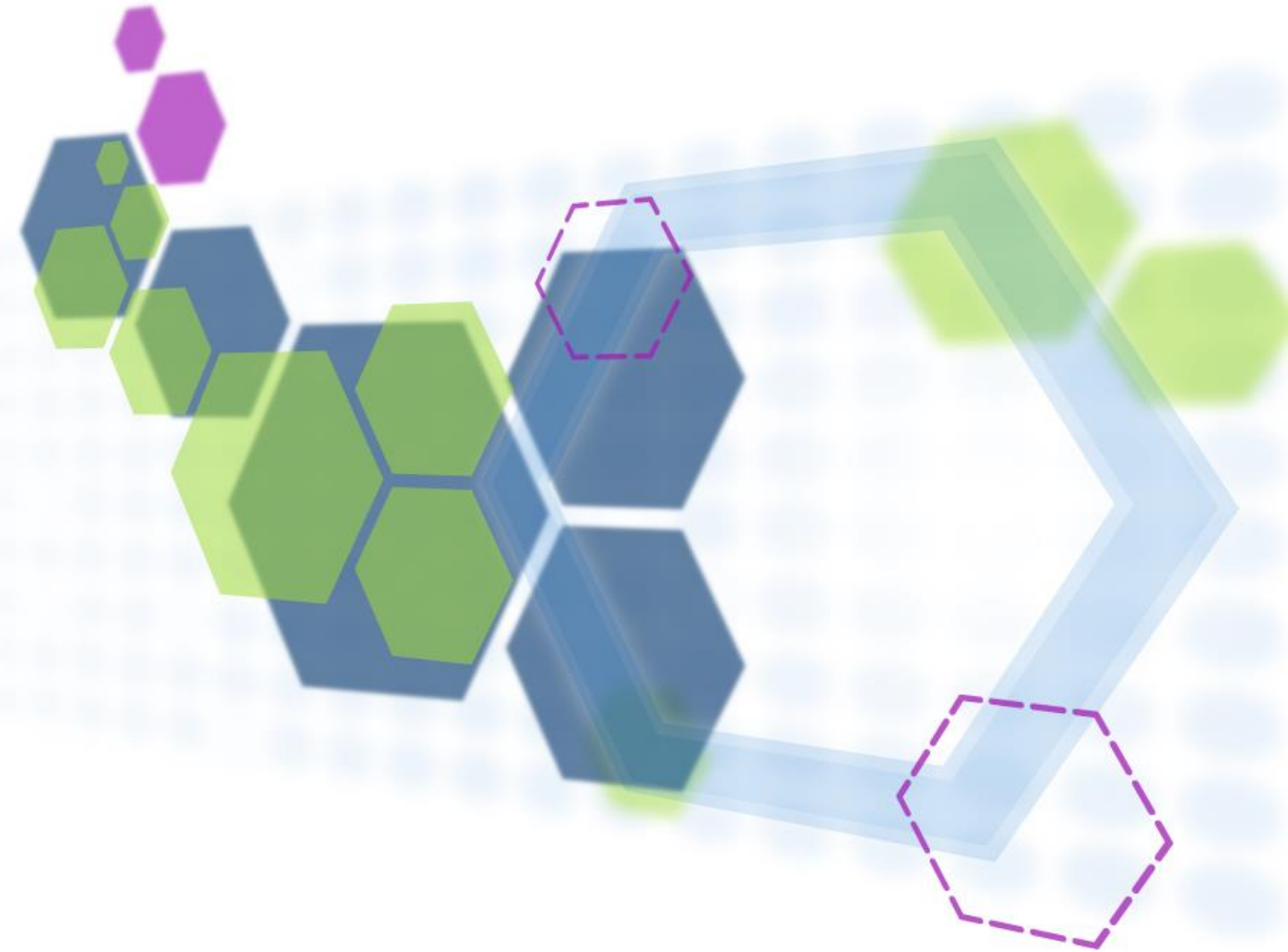
- Separate Tenant
- Customer network capacity upgrades

Per User Cost Comparison

Product or Service		Current Service Monthly Per User	Office 365 Monthly Per User
Software / Service User Licenses:		\$22 - \$32	\$27 (Also includes cloud-only products)
<ul style="list-style-type: none"> Office Professional desktop Windows + Enterprise CALs Email, Anti-virus/Anti-spam Message Hygiene, Secure Email 	<ul style="list-style-type: none"> Email Archive Mobile Device Management SharePoint Skype for Business 		
Additional Identity Management, Tenant Administration and Support		(Not required)	+ \$2
Additional Network and Security Infrastructure		(Not required)	+ \$2 - \$17
Shared Tenant-Total Monthly/User			\$31 - \$46
Additional Active Directory Federation, Tenant Administration and Support. (~2000 users /tenant)			+ \$7
Separate Tenant-Total Monthly/User			\$38 - \$53
Migration Costs: One-time cost for migration tools and contracted support staff			\$50,000 - \$750,000 per agency tenant

Note: For comparison only. Estimates shown here do not represent actual current or future WaTech service rates.

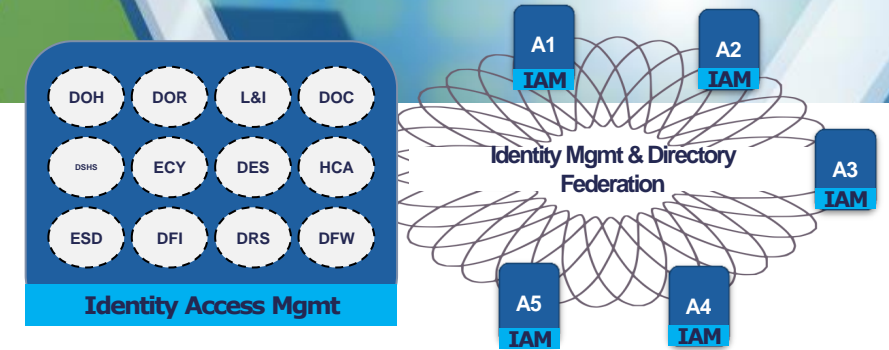
Where Do We Go From Here?



Office 365 Strategy

(Approved by Executive Board)

- Single Enterprise Shared tenant – agencies request exceptions
 - OCIO Waiver process
 - Agencies with separate tenants assume additional costs
- Establish enterprise program – everyone moves forward together
 - Establish project team(s), governance structure and budget
 - Implement a hybrid environment to a “test tenant”
 - Validate tenant and IAM architectures and management processes
- Establish a private network connection to Microsoft government cloud
- Propose a Funding Strategy



What Is Being Done Now?

- Identity Management / Office 365 Program established
 - Jason McKinney, program manager
- Establishing Pre-Production Tenant for testing hybrid configurations
- Office 365 Production Shared Tenant Available Now
 - Available to any agency to activate Office 365 desktop software licenses
- Upgrading to Exchange 2016 in preparation for O365 migration
- Introduced the EAD Steering Committee to Office 365
- Research and discovery for MS ExpressRoute (pending funding)

Office 365 Strategy Brief

Thank You